

Human Practice Handbook

Universitas Indonesia iGEM 2016



IN THIS ISSUE

by Policy and Practice Division

Human Practice is one of the division in our team, conducting three major works; social studies, public engagement and education. Social studies aims to know the profound characters of the society itself including their customs and values regarding to our concern. Public engagement is the way we get along and maintain a good communication through joining the community and giving trusted information. Meanwhile, education is the real way we spark the society's interest through lecture or talk. In doing those three major works, we face a few

challenges which are the difference in the level of understanding, different level of education and also sociocultural difference that requires different method of information sharing.

Thus, this handbook is addressed, but not limited, to multicultural society like Indonesia and/or other countries so that in the future, other team can use this handbook as a guidance to conduct human practice projects they are willing to make.

Salam hangat,

Human Practice-UI iGEM Team 2016

National Education Fair

Coinciding with the celebration of National Education of Indonesia, the Ministry of Education and Culture of the Republic of Indonesia in cooperation with 112 social organization, education activists, and public figures organized an event called "Pesta Pendidikan (Education Fair) 2016". This national-scaled events was held in March, 1st 2016 at FX Sudirman, Jakarta. The main theme of the event is "Everyone is Learner Everyone is Teacher" (Semua Murid ,Semua Guru). The fair consisted of minor events. Minor events are consisted of Gallery Walk, Talkshow, Fun Run, Music Concert, Games, and many more. This events was not only attended by people



from many different interests people and students, but also attended by public figures and Indonesian Minister of education and Culture, Mr. Anies Baswedan. This events also covered by some national TV station, like Kompas TV, Metro TV, Indosiar, and many more.

A VISIT FROM GOVERNMENT

Right: Mr. Anies Baswedan (Minister of Education & Culture of Indonesia, at that time)

Left: Farhan (iGEM Team Leader)



information boards about synthetic biology, HIV, and Hi-Vax as our project. The aim of the Gallery walk is to introduce and attract people's interest about synthetic biology, and also to introduce about our research project. We also made interesting display and figure about how synthetic biology works. The intensities of the audiences was high, they were really interested to learn further about synthetic biology. Even almost all of them were wanted to be informed more about advanced synthetic biology. They also gave us support.

As our social engagement and education contribution, UI-Indonesia team contributed in this events. We participated in gallery walk. Gallery walk is an information show and an interesting education tool for attenders. We made a Gallery Walk which contains interactive

Synbio ID

Indonesia is the fourth largest country in the world. It has more than 250 million people, and about 50 % of total population is student. For a country that has that numerous student in population, Indonesia should have a good education system that can facilitate everyone to learn every subject they interested in. One example is synthetic biology. We know that synthetic biology is an interesting subject, but it isn't yet concluded in Indonesian curriculum system, even in biology subject. Moreover, Indonesia doesn't have any website or learning tools that provide complete and comprehensive information about synthetic biology.

Based on that condition, as part of our contribution to education, we are trying to build a website which contains everything about synthetic biology. This website is expected to be a pioneer in synthetic biology education. We named the website "synbio-id", which is the abbreviation of "synthetic biology Indonesia". The website is available in url www.synbio-id.com. With the tagline "synthetizing Indonesian scientist", this website will provide articles, posters, pictures, videos, and other interesting facts and informations about synthetic biology.

Our website has some menus:

- **Synbio Basic** provide everything about synthetic biology basic, for those who want to know the basic knowledge about synthetic biology



- **Synbio Trivia** provide fun fact and interesting games about synthetic biology
- **Synbio Update** provide news update about synthetic biology around the world
- **Synbio Indonesia** provide everything about synthetic biology updates that happen in Indonesia
- **Dictionary** collection of words that contains the terms in synthetic biology and its definition
- **Our Projects** provide any information about the UI-Indonesia team projects
- **About Us** Introducing the team behind the website

School Visit

In Indonesia, students coming from junior high school level are first to experience learning science in specific courses, i.e. biology and physics. We see this condition as our advantage to introduce synthetic biology for their first experience in knowing both biology and its advancement in synthetic biology. Furthermore, this is the great opportunity to spark their interest in science, especially in synthetic biology. Additionally, as they are in the age of puberty, we also see that we can educate them about HIV/AIDS issues since our project revolves in the realm of HIV/AIDS issues.

Our school visit went to SMPN 184 East Jakarta. We successfully delivered a teaching and interactive discussion class for the students of the school. Gladly, they were more interested than we expected as they asked us what kind of majors they should take in senior high school and university level.



HOW TO DO THE HUMAN PRACTICE WORK FOR: EDUCATION



Synbio Day

To further deepen our focus in education of synthetic biology and its application, we bring our case of DNA Vaccine for HIV/AIDS to be known and discussed in Synbio Day 2016 : *Integrating Technology with Socio-culture Perspective*. Synbio Day 2016 is our first social engagement we specially made for academics and collegiate level. Publication through many social medias turned out to be massive and reached audiences through out mainland Java and even East Nusa Tenggara. Seeing such interest, preparation is the most important thing to do if we want to make such big event. Therefore, we made points of what we are aiming from this event. This way, we could plan every move clearly and precisely for every big event we are going to held. Here are the scheme of Synbio Day 2016 :

SYNBIO DAY IN HIGHLIGHT



Greeting & Opening Speech

Delivered by Vanessa (UI iGEM 2014) and Deandra (UI iGEM 2016)



The Crowd



The Debate, The Movie Review, & The Talk Session

A Visitation to HIV Support Group

It is not enough to understand how people living with HIV/AIDS by theory or by readings we have read, it is also important to interact and get to know how the disease affects them both in personal and social life, especially in how they have experienced in receiving antiretroviral therapy.

We also discussed to the HIV counselor that attended the HIV Support Group. It is very helpful for us to understand the concerns that have been growing in this HIV/AIDS related issues.

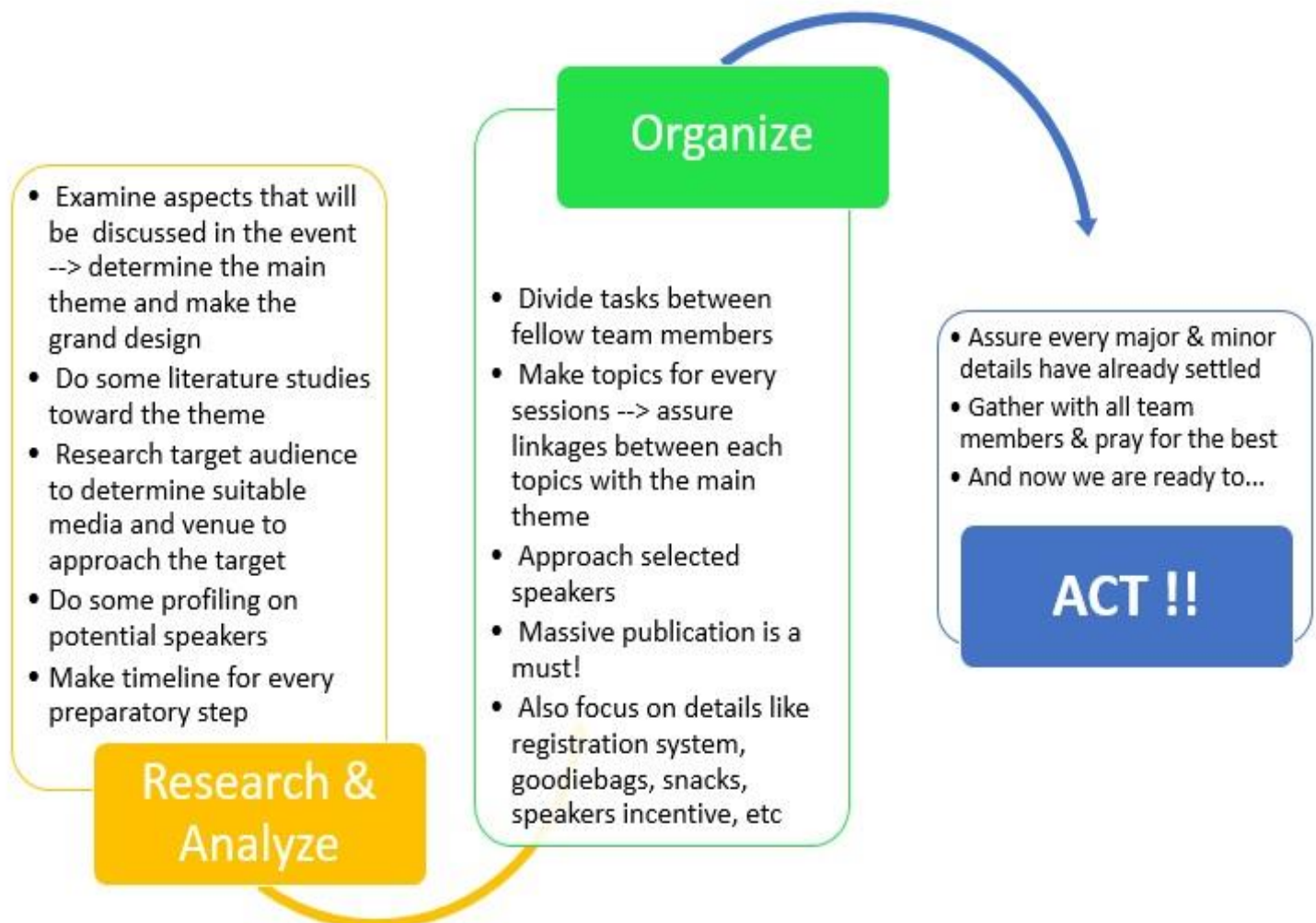


Public Discussion Forum

It is very interesting to not only listen but also to engage in dynamic discussion with people living in area of a high HIV risk, such as in Jakarta. We successfully delivered a public discussion in a small group discussion which benefit the participants in term of understanding the material being given and discussed.



HOW TO DO THE HUMAN PRACTICE WORK FOR:
PUBLIC ENGAGEMENT



Social Study

Social studies that we have done is a holistic assessment and puts various perspectives on looking at the dynamic of HIV/AIDS issues in Indonesia. In addition, these studies also tried to address the readiness of Indonesian society towards innovation in the HIV disease treatment. The results of the studies that we have done, it was discovered some interesting points that related to the problem of HIV and possible treatment as the main area of our project team.

Based on the literature review and information from socio-cultural and psychological perspective experts; we established a pre-study to find out the socio-cultural conditions that limit the self-actualization and its influence on the psychological dimensions of HIV patients, basic knowledge that related to the actual conditions of people living with HIV, and equipped with an understanding of what sectors—in this context, policy-maker or government, industry and health sectors—are very close toward the support or resistance in the lives of people that living with HIV in Indonesia. After conducted an interactive discussions with experts in these areas, it can be found that the government has not a holistic and integrated policy to resolve the problem of HIV in Indonesia. Roadmap that describes government efforts to address HIV is not available and yet to be a health problem priority that must be addressed-while the number of people living with HIV in Indonesia continues to increase in recent time. Meanwhile, the industry perspective is more focused on the development possibility of synthetic biology-based industries in Indonesia. While the health perspective, it is associated with the policy sector, there is no regulation or policy that specifically support people living with HIV in Indonesia. This resulted in the lack of health facilities for people with HIV and the increasingly severe pain conditions.

From the studies, we understand that our society is well-literate in urban area such as in Jakarta which supports the further understanding of HIV/AIDS, but it is another case in suburban or more rural area. Thus, educational resources and methods of delivering information about HIV should be adjusted for certain society i.e. for urban and suburban, therefore negative stigma towards people living with HIV is still there. For this reason, our integrated program became the basis for the implementation of education-based activities for the society. An interesting finding in the implementation of public engagement about HIV-related education **must be adjusted with understanding level of the community and educational methods according the age group**. In the end, our studies and HIV-related education project that we did successfully attract awareness and positive attitudes towards HIV in young children to adults from different socio-economic background.

Our goal is to understanding the actual condition of HIV in Indonesia from important perspectives and established a knowledge base to implement the other policy and practice project.

We talked to several experts from different perspectives (Ms. Genta Tenrimawangi and Johanna Deborah Imelda both as researcher in UI for socio-culture topic, Mr. Haryo K. Utomo as a researcher from UI Center of Study For Government for political-legal topic, Widi Kusnantoyo as head of Center of Study For State-Owned Enterprise for industrial and

Mrs. Tika as HIV counselor from Kramat Hospital for health topic).



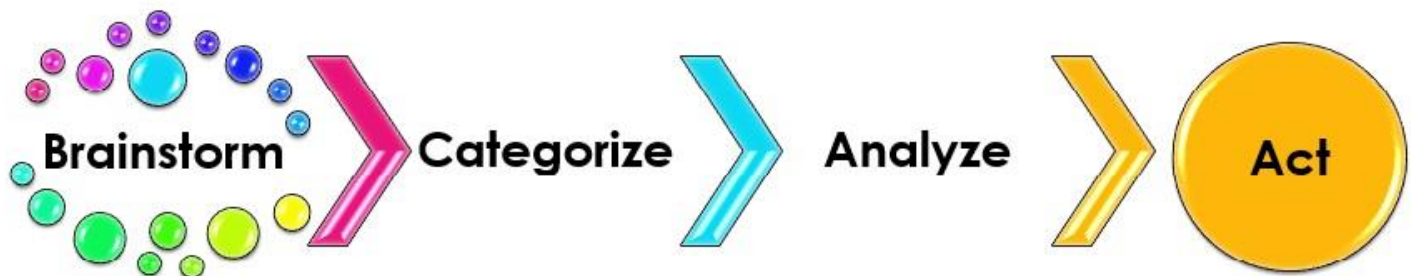
A Visitation to HIV Support Group & Discussion with HIV Counselor



An Afternoon Talk with Mr. Haryo K. Utomo from Universitas Indonesia Center of Study For Government



An Open Response from Mr. Widi Kusnantoyo of Center of Study For State-Owned Enterprise

**Step by Step:**

1. Questioning the iGEM project in various sector
2. Doing literature study based on our question
3. Discussing the findings found in literature to lecturer and experts

Step by Step:

1. Making priority list of issues that need to be addressed
2. Connecting sector of issues through how it correlates each other

Step by Step:

1. Gathering legal information relating to focus sector i.e. policy, governmental act, etc.
2. Digging facts and real cases regarding the focus sector
3. Doing direct interview to target people involved and/or affected by the focus sector

Step by Step:

1. Implementing the result of previous process to be real activities
2. Gathering the findings and feedback from activities
3. Summarize the result from previous analysis compared to findings and feedback found from activities